

UNITED STATES  
DEPARTMENT OF THE INTERIOR

DI-6

APPROVED DECEMBER 1940

1981



1981

March 16

Rain Cold wind in aft.  
Drizzle & mist in morning

# 8.11 Popes Creek

Cliffs w/ Nanjemoy Fm  
to base

*Wetherillia* scattered

*Wetherillia* fossils in Nanjemoy

& some in base of 3A

Salvage Fm

Nanjemoy fossil zone

10' to 15'

Just below - 10' to 15'

Calvert Tan SS. Grading upward

in 15' to 20' to 25'

Platonic 9 ft.

Calvert - 19, 02 on 5

19, 02 on 5



March 17

812

MD Rd. 22.4 alt 1 1/2 mi

S. 2 - MASON SPRS. 1 mi

~~13.1~~ CUT BRICKS 5.07

MD Luz. P. 14-15 of md.

MI #5

~~Aquatic ferns~~

4' Upland gravel.

4' Moss, MANICHOV Fm. Sandy  
reddish. IN slope with  
difficult to see.

14' STEEP bluish gray unstratified  
MAYBROOK CLAY Lsh. SILTY, carbon  
FLECKS & BURROWS. Supposed to be  
FLAT intertidal FERTILE  
3' BAWA Fm. Sandy & shaly  
1' OL. Wm. thin bedded  
SYSTEMS. Trapped in  
IMMEDIATEly beneath  
ST. 25.

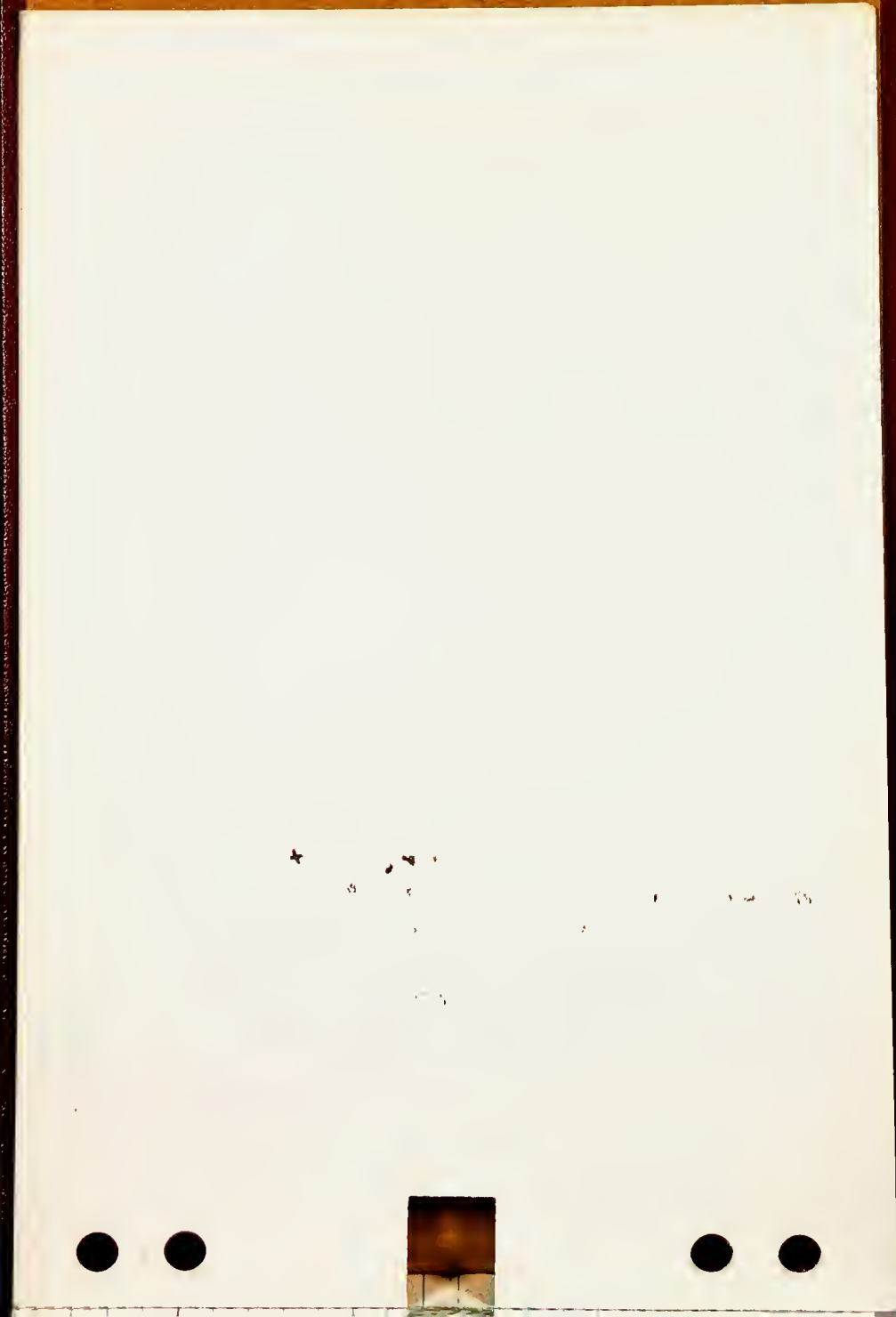


March 17

813

W of

ATTEMPT TO FIND NANJEMOY  
BUT STRATI too high.  
EITHER IN CALVERT or Pleis-  
to-PLIST.



814. HANNOVER Courthouse loc.

Nanjemoy E. Eocene  
CONTACT w CALVERT

ON PATOMACK River

2nd Crossing by 614 Va  
E of TOWN

BAD.  
2001

Top of fill over  
SS - CONTAINING fossils  
- 6 feet TO fossil layer

LAYERS of SS + CLAY



To: britt Wheeler <britt.wheeler@yale.edu>  
From: Leo Hickey <leo.hickey@yale.edu>  
Subject: Fwd: Stafford Courthouse Megaflora  
Cc:  
Bcc:  
Attached:

Britt,

Could you clean this up and make sure that the final copy retains my indents. When you resend to Bob, it can go as a word attachment but let him know that you are sending a somewhat cleaned up and formatted version. Could you also send a copy to Scott Wing at the SI?

Thanks,

Leo

Date: Thu, 05 Jun 2003 15:38:02 -0400  
To: rmixon5535@aol.com  
From: Leo Hickey <leo.hickey@yale.edu>  
Subject: Stafford Courthouse Megaflora

Dear Bob,

Scott Wing at the Smithsonian very kindly found a copy of my original E & R report, dated July 30, 1981, in the cabinet with the collections from the site.

#### FLORAL LIST

| Name                                                 | Range                                                                          |
|------------------------------------------------------|--------------------------------------------------------------------------------|
| Ferns:                                               |                                                                                |
| <i>Angiopteridium ovatum</i> Fontaine                | Patuxent Fm. at Fredericksburg, VA                                             |
| <i>Onychiopsis goeppertii</i> (Schenk) Berry         | Throughout the Potomac Gp., Kootenai Fm. of MT and Lakota Fm. of WY            |
| Cycadeoids:                                          |                                                                                |
| <i>Dioonites buchianus</i> (Ettingshausen) Bornemann | Patuxent Fm. from Lorton to the James River, VA                                |
| <i>Naegiopsis zaminoides</i> Fontaine                | Throughout the Potomac Gp. from the James River to Baltimore; Shasta Gp. of CA |
| <i>Nilsonia densinerve</i> (Fontaine) Berry          | Patuxent Fm. at Fredericksburg, VA and Arundel Fm. at Langdon, DC              |
| <i>Scleropteris elliptica</i> Fontaine               | Patuxent Fm. from the James River to Cockpit Point, MD; Horsetown Fm., CA      |
| Conifers:                                            |                                                                                |
| <i>Araucarites</i> sp.                               |                                                                                |



*Sphenolepidium* sp.

Angiosperm:

*Ficophyllum crassinerve* Fontaine

Patuxent F. from the James River to  
Potomac Run; Arundel Fm. from  
Langdon, D.C. to Arlington, MD

From the ranges of the species, the age of the locality is Aptian to early Albian, equivalent to Doyle and Hickey's Zone I. This is interesting given the pollen zone of IIa that Doyle assigned to road-cut locality on the road west from the Courthouse to the Jct with I-95. I have a note that I took pollen samples for dating, but these were not with the specimens. So much time has now elapsed that I cannot remember if I sent them off to Jim for analysis. I could write to him to ask if he ever examined them, but he may well not recall. If this is an important issue for you, there are some clays interbedded with the predominantly sandy matrix of the blocks and I could clip some of these for analysis on my next visit to the SI. Let me know what you wish. No census data were recorded for this locality. Also, you mentioned that this was for a map that you are doing; may I have a copy when it appears?

Any or all of this report may be quoted for publication.

Sincerely,

Leo J. Hickey



7/23/81

815 POTOMAC - ACCOCEER CR  
DIVIDE S of STAFFORD  
CTH. ON I-95

Sand, light grey KALINITE  
x-bedded with  
rare clay interbeds  
x-bedding much constricted  
plant matter on bedding  
planes

Tops of hills capped with  
30' plio-mio gravels  
cut in all strata  
from top  
and in constricted  
greenish clays

SS bed at top of  
clay at \_\_\_\_\_

SS bed at top of  
saddle at least  
30-40' thick  
consisting of base  
and top of by sulphate  
SS



## Flora

PIDONITES buchianus

ZAMITES

ARAUCAURID CONIFERS

~~EPIDENDRUM~~

Thyrsopteris

Angiosperms 2 kinds

Very poor pres.

Ficophyton type

4 kinds of ferns

200

Barometric

AT TOP OF FILL OVER

SS CONG. BASE

- 6 FEET - TO FOSSIL LAYER

LAYER - SS CONG.

FOSSIL LAYER AT 186'

WCSOT BAR AT

ANER LEG. B.M. AT 250'

187'

from 250 AT B.M. TO

DOYLE & HICKMAN

STATION 187' - 186'

HAROLD J. SALMON

RTE 9 Box 1120

Clifford Virginia

Loc 815

Notes

7/23/81

~~1950~~ 1950 m n of S bdy  
~~7090~~ 7090 m e of the W bdy  
of the Stafford, Va 7 1/2 mi  
quad.

1950 m n of S. bdy

7090 m e of W bdy

2 1/2 mi SW of Stafford CH, VA  
Stafford Co.

Light grey, x bedded ss +  
interbedded clays of Potomac Gr.

Zone 2A abt 60' below top of  
hill now stepped by grades.

Elevation of Fossil site 185' by  
barometer

Elev of 756 Dr H Pollen site  
Zoned 2A at Stafford Fire  
Station at 169'

Collected by Arnold Powell  
Scott Z. Wang



Loc. 815 Cont'd

So. occurs in beds  $2 - 4\frac{1}{2}'$  thick. It is grey, fossiliferous f. to m. grained and interbedded w/ claystone beds up to 6 in thick. So. x-beds dip generally S w'd here. Looks like a braided stream deposit.

Bulldozer operator Salmon reports that trail of ss. is about 400' wide & trending generally N. along I.F. 95 through the locality.

Red Beds in a clay lens seen abt 500' ~~east~~ west in adjacent exposures across small drainage running S along the west boundary of the striping.



816

August 14, 1951

Forest, Ironwood & Kaupapa Kauri  
Forests, North Island, Northern  
Peninsula, New Zealand.

Fr. Ironwood

*Munmannia racemosa* \* (coll) common

*Agathis australis* (dom)

*Libocedrus <sup>plumosa</sup> ~~torulata~~* \*

*Podocarpus ferrugineus*

*Podocarpus dactyloides*

*Dacrydium <sup>flage</sup> ~~but~~ <sup>that</sup> ~~strongly~~ <sup>ascending</sup>*

*Dacrydium cupressinum*

*Podocarpus <sup>ascending foliage</sup> ~~torulata~~*

*Podocarpus <sup>torulata</sup> ~~torulata~~* common

*Melicope ramiflora* *Violacea*

*Knightia excelsa*

*Pittosporum tenuifolium*

Contd on back of page

*Pseudopanax arborea*  
P. *Cramptonii*

*Griselinia lucida*

Arborei - These were  
going up the "Falter 7th  
Forest" in Harpau

*Freyenita arborea*

Palm *Dactyloctenium* most southern one of  
the palms

8/14/81

817 Haiphong

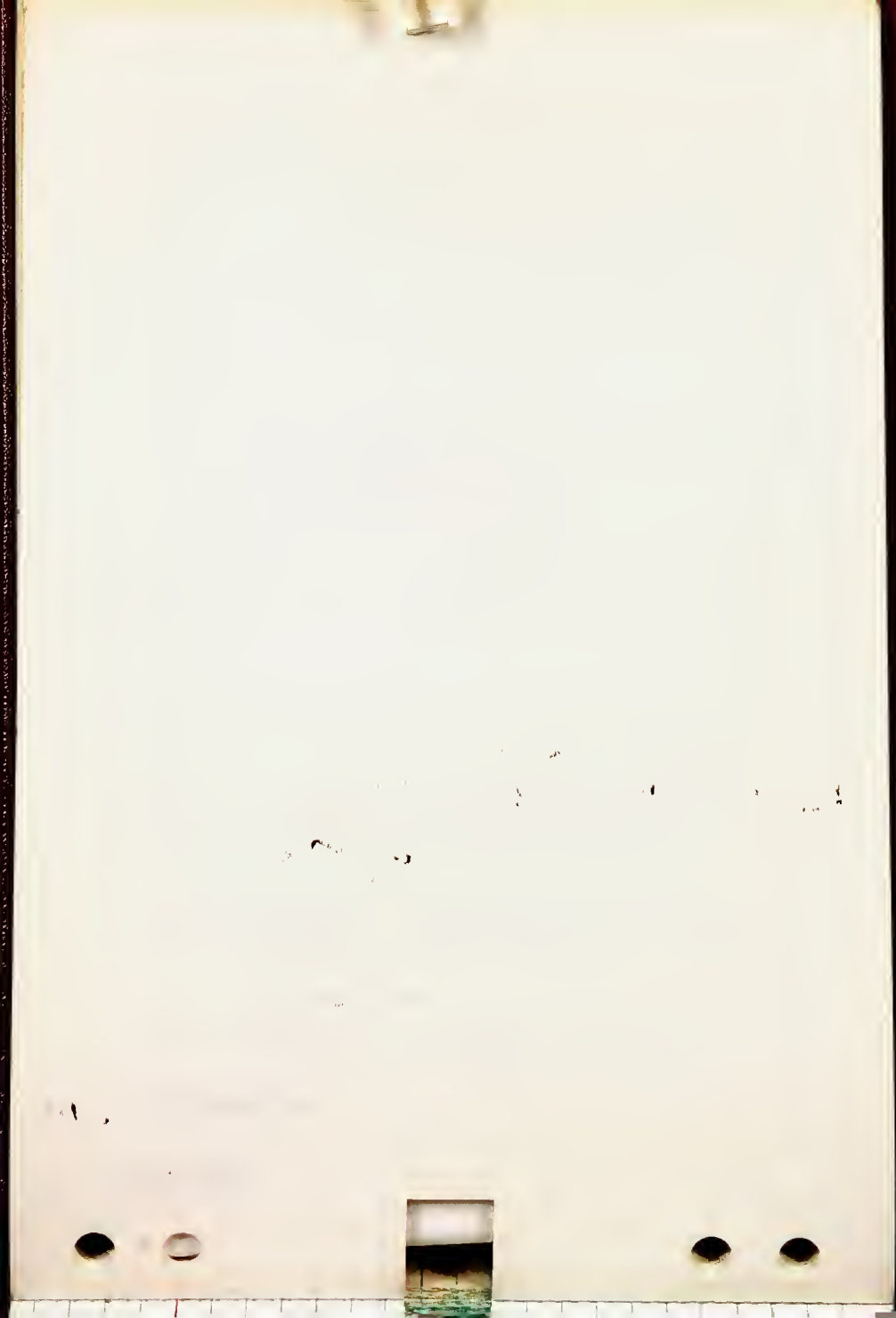
for addition to all sp. at  
Tranman

*Austotelia serrata* \* (col)

Saw Father of Sp. F-red  
53' in *Cucumferaria*

818 Coastal swamps coming into

Hokkaido Harbor  
& in estuary margin  
near Palau.



8/15/81

819

Alt. Haitange trust.

Phyllocladus

Chloranthaceae

mycetes

2nd growth bush + coastal  
fresh



100 100 100 100  
100 100 100 100

100





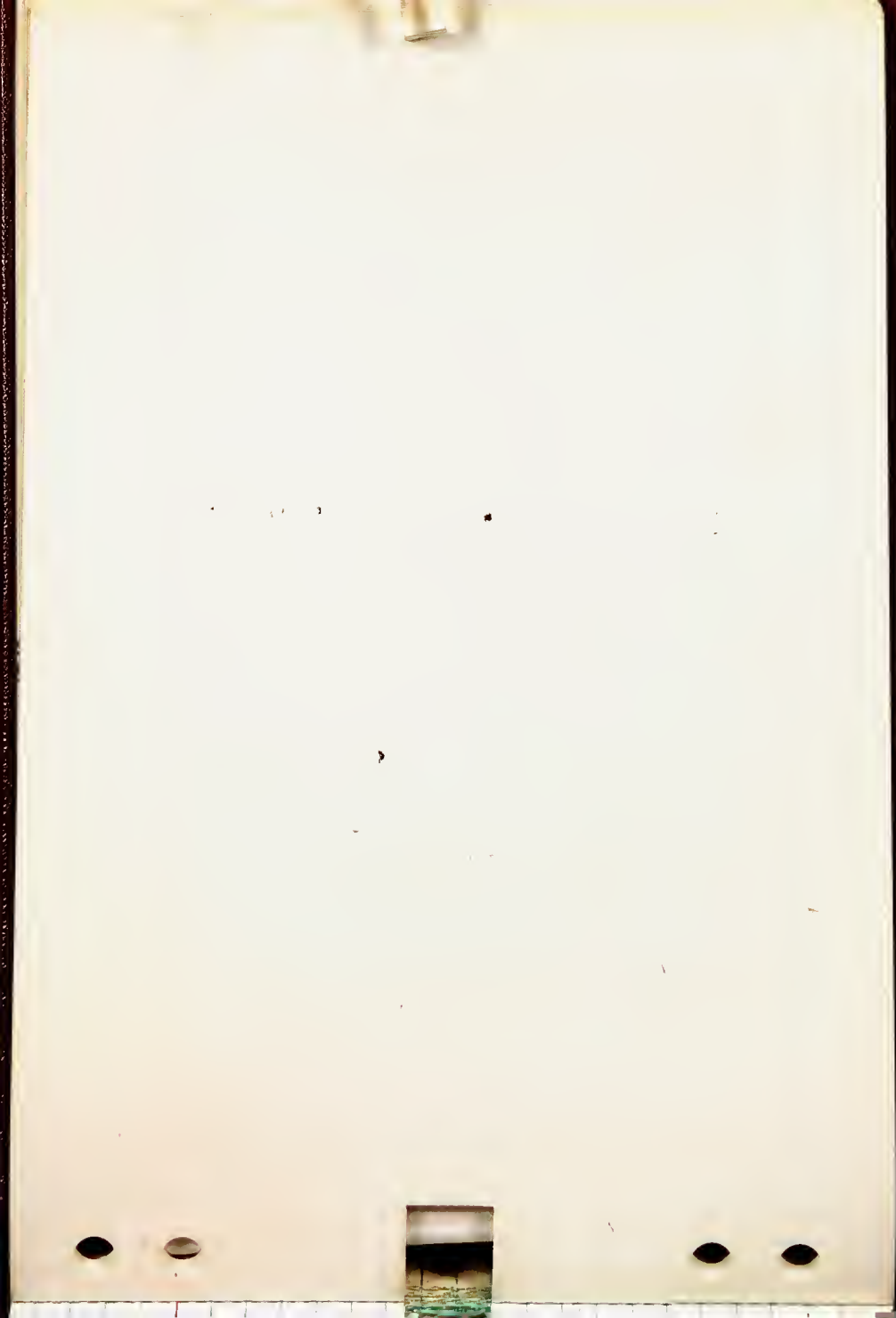


Veronica X  
2/1/2000

Exchange

Numbers will run  
all over the place  
the paper is good

Don use pencil for



Aust Natl Museum

Aust Natl Museum

*Austroglorisa watsonii*

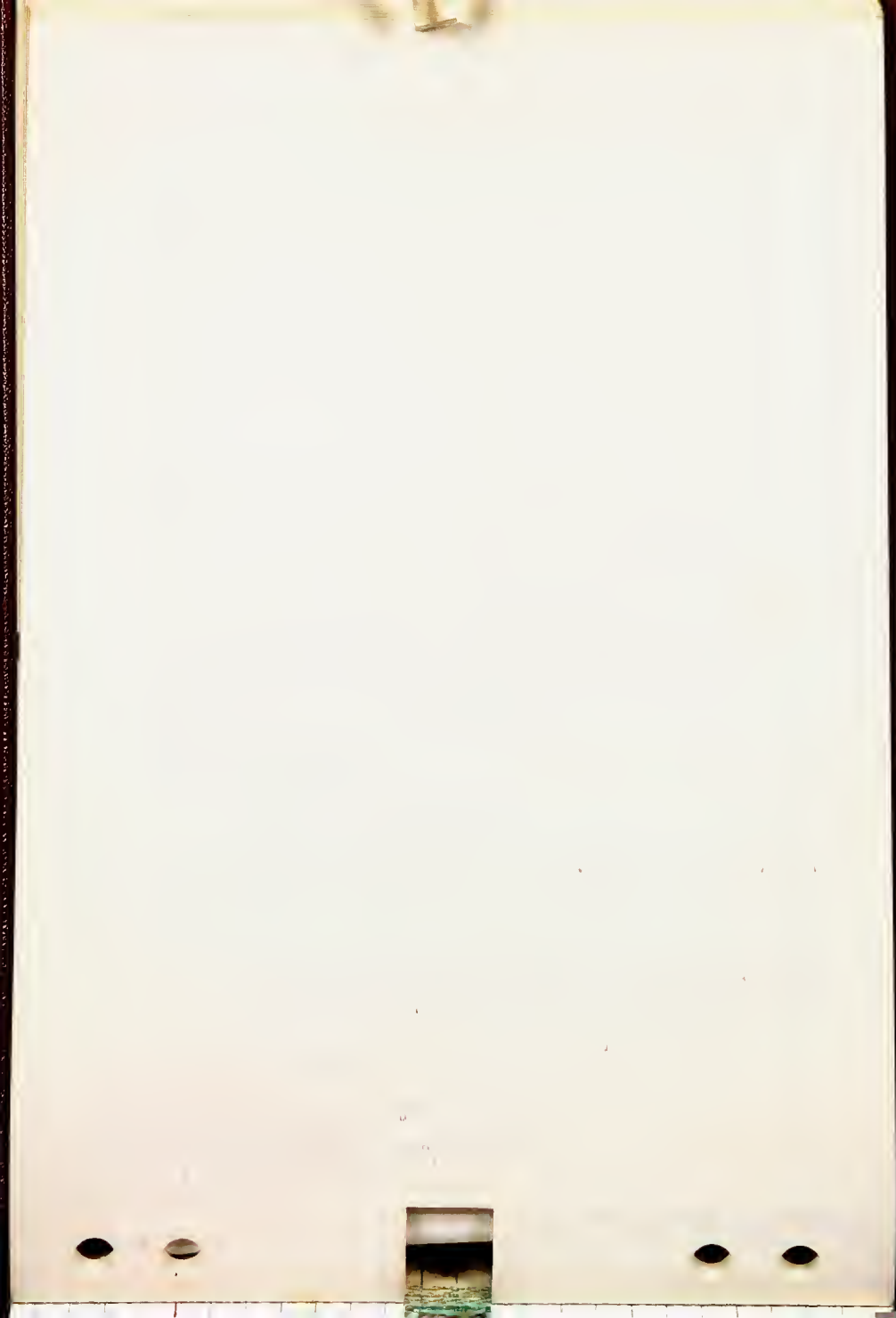
Frustrification of platyspermous  
seed attached to nr. of leaf.

*Isosperma linearis* ✓ Penn  
linear leaf on robust axis w/  
leaves attached

*Australocaulis*

*Cyclomeia undulata*  
Suberulge in linear leaf  
ident or *Isosperma*

*Sperandopsis* to Mary White



8/30/31

8113 Culvert on Deep Creek  
N of CASTERTON  
ON CASTERTON 1:63,500 Quad  
AT COORDINATES ~~35+~~  
141° 35' E long.  
37° 35' S lat

Creek BANK slump on N. side of  
E-W road ~~at~~ from 3-0' above  
STREAM level.

DARK grey SILTY CLAYSTONE WITH  
PLANT REMAINS

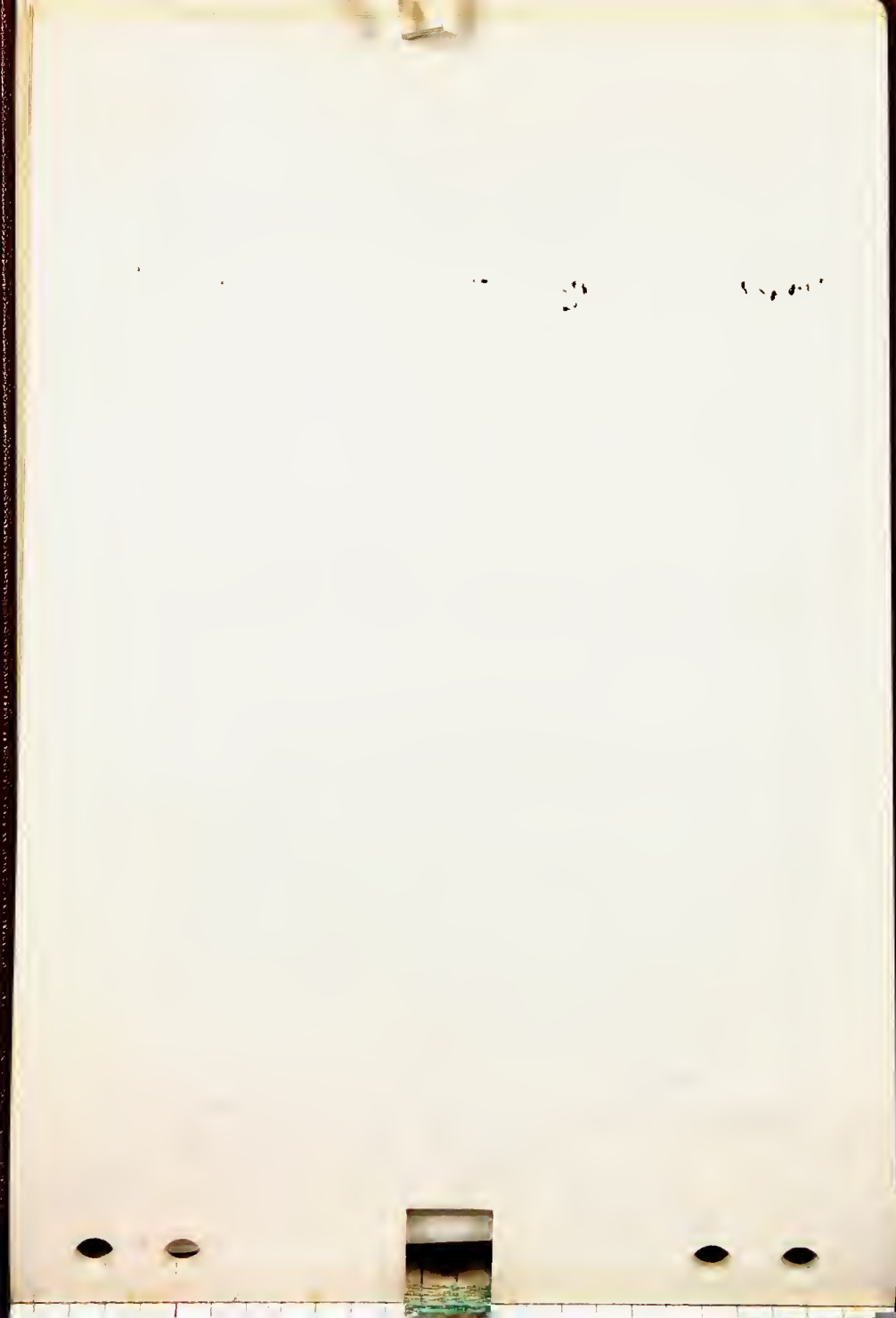
ARAUCARIAN cone scale

Cladophlebis (Osmundaceae ??)

Amanita floribunda

Locality given in Douglas  
Monograph 28229 VICT. Geol  
Survey.

Collected in RAIN TEMP



8/31/81

811H

LANDSLIDE SCARPS ON  
NE SIDE OF KILLARNO GLUE

← 20' x bedded ferruginous  
mud ss

← GREY TO TAN SILTY SS

← CLAY, SAND, SILT  
INTERBEDDED

SILTstone bedded

CLAY, MASSIVE

Sometimes in silt

partings CLAYs med to

dark grey some in

sil. flags, roots

some represent under water

811H - ~~Vegetation~~ Fossil PLANTS

11/11/81, 11/11/81

90.1 100.1 110.1 120.1 130.1 140.1 150.1 160.1 170.1 180.1 190.1 200.1 210.1 220.1 230.1 240.1 250.1 260.1 270.1 280.1 290.1 300.1 310.1 320.1 330.1 340.1 350.1 360.1 370.1 380.1 390.1 400.1 410.1 420.1 430.1 440.1 450.1 460.1 470.1 480.1 490.1 500.1 510.1 520.1 530.1 540.1 550.1 560.1 570.1 580.1 590.1 600.1 610.1 620.1 630.1 640.1 650.1 660.1 670.1 680.1 690.1 700.1 710.1 720.1 730.1 740.1 750.1 760.1 770.1 780.1 790.1 800.1 810.1 820.1 830.1 840.1 850.1 860.1 870.1 880.1 890.1 900.1 910.1 920.1 930.1 940.1 950.1 960.1 970.1 980.1 990.1 1000.1



MONTAIGNE DES Sources 1/3/31

3rd stop 160 m

PX Apocynaceae

Cerberiopsis caule/album  
monocarpic



3/9/81

Hibbertia WITH NO TEETH  
1. m vein

leafy - See leafy side IV  
folded

STYphelia - Epacridaceae  
D. ...

Px Doyle w Hibbertia

5261 - OncoTheca

OncoThecaeae.

lus w Theoid BRISTLES

Px Nepenthes

Px Geissos CONONIAEAE

Px Epacridae held by M.  
Vaillon

~~Px Lamandra Australis~~

Px Epac held by JAD or



9/3/81

Do STOP. At 1st 2nd 3rd

Aquifoliaceae

~~Clusia~~

Nicotiana

At 1st 2nd 3rd

Flagellariaceae

From 1st to 3rd



9/2/81

3rd Station 120 m

~~Hypoxys~~

PX Cerberopsis chalcidiformis

PX. H. liberti's brongniartii







9/3/81

STUD 5

Myatilis ovata

Aralcania berrilli

Gymnostoma sp.

~~Hibbertia bairdianii~~

b

~~bairdianii~~

~~bairdianii~~



9/3/81

Sept 6 550 A

PA Voller as before  
500

PA Agrotis laccaulata  
w/ Agrotis pernici

Agrotis laccaulata  
w/ Agrotis pernici

PA Agrotis

PA Agrotis

Agrotis

PA



Sep 7

610 m

9/3/81

Coccoleris sp Euphorbia

17x

5205

Conium cf. pterophylla

5206

Hibbertia baudouinii

Acrida depuncta

18x

Exocarpos pseudocaryocarpus

5208

~~Hedycarya~~ Hedycarya

~~under~~

prob.

~~parvifolia~~

Nett

under Nothofagus



Stop 8

730 m

9/3/87

px = *Dacrydium araucarioides*  
*maritima crinita*

px *Dacrydium araucarioides*

*Myrdocarpus*

*Callistemon* & a *pachycaul*  
*pinet*

5202 *Myrdocarpus* *colanavira*  
5207.1 7 seedling.

5208 *Hedyotis* sp. - prob. *parvifolia*  
under *Myrdocarpus*  
Series from

*Dacrydium* more abundant  
upward



9/3/81

STUDY

760m

px px NFA 521000000 1000000

Podocarpus

FALSE SAND/LE wood.

px Clear up

1000 1000000

px Newell tropic (up) Bactrian

5209 Higher Tia Sp

New Canyon #

3200 sp + 1/10 size line

1/10 3200 sp



9/3/81

Stop 10

760 m - Up to 30 m

Summit in Savannah - ARUCARIA

dom. woods in drainage & lower slope

PX

ARUCARIA MEIERI

Stratification

Saver 272 71

5212

5213

Stratification

In this wood

5210

Canopy 10 3m

- Seedlings

in fruit

ALL DAY

5211

NEARBY

Stratification

ARUCARIA

MEIERI

PX

ARUCARIA MEIERI

PX

Stratification



9/3/81

STOP 10

At Summit

S214 *BEAUFORTIA* 107100 108  
Seedling 1.8 m tall

Young leaves

MAJORITY ONES one high in  
dissected

S215 *Hibbertia VIRIDI*  
Shrub 1.0 m open

S216 *ASCARINA*  
(PX) Shrub 1.0 m open



STOP 11

9/3/81

580m

2px

~~ANTHUS~~ ANTHUS

1px

BIRKIA - RUTACEAE

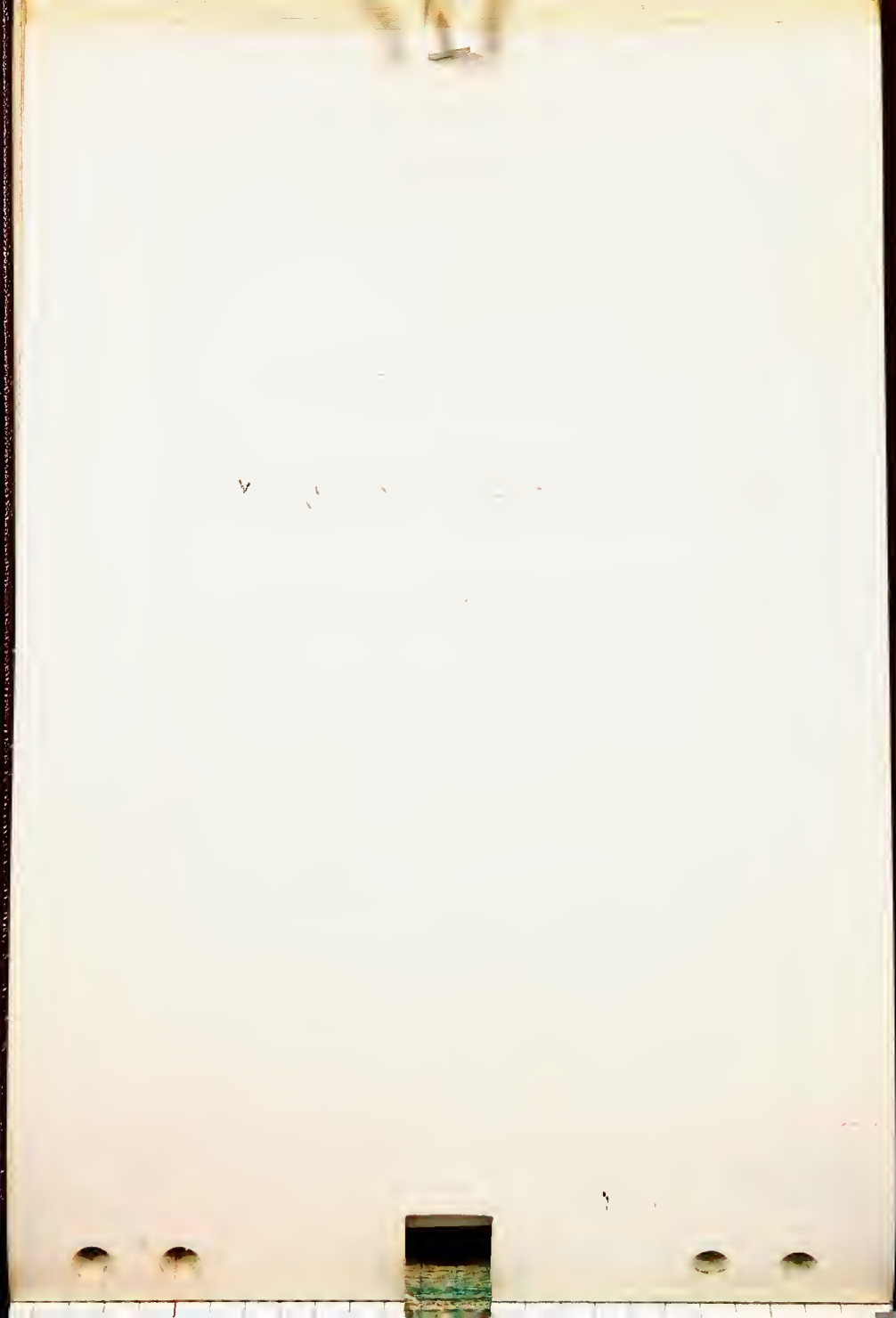
GREVILLEA

~~CRIB~~ ~~SP.~~ Belleolum sp.

DIURIOCALYPTUS MYRTACEAE

MYRTACEAE

~~LOXOSTYLUS~~ (LOXOSTYLUS sp.)



Stop 12

9/3/81

470 m

5217 *Ballistium* sp. cf. *crassifolium*

7 feet tall

5218 *Agathis lanceolata*

5219 *Podocarpus niger*

At this last stop it is apparent that the gymnosperms and *Nothofagus* and the sapotaceal project above the low canopy of angiosperms and regenerating gymnosperms. This whole forestate wind pollination of those projecting above the canopy. Symbols form continuous mixed stands but are very patchy. When they occur there are large nos. but there are wide



spaces in between.

The pachycaul habit of the angios is very notable not only in the open scrubby areas but in the forest as well. Is this an adaptation to very slow growth on the serpentine derived soils?

The amount of pachycaulity seems greater than in the Kaori forests of N. New Zealand.

The vesselless angiosperms  
Bellerophon, & yppos



4/17/81

MT D20mac 660m

on the road  
along a south flowing trip  
of the R. Dumbear entering at  
la Couvele

in fields

5020 Ilex hirtellifolia

Neoguettarda

px 5021 Gymnostoma

5022 Pancheria

in mountainous forest

5023 Melastomataceae

with yellow flowers

Trip ascended Trib to a pass  
between M. Kouvele &  
MT D20mac and then  
went west along the  
N. facing slope about  
1-2 mi until reaching a  
forest



STUD 2 850

1000 1000 1000 1000  
Other Analysis  
in Control

1000 1000 1000 1000  
1000 1000 1000 1000

5225 Micromys (Mammalia)  
in flight

1000 1000 1000 1000  
1000 1000 1000 1000  
1000 1000 1000 1000  
1000 1000 1000 1000

5224 2000 1000

1000

Callistemon (Mammalia)



4/9/81

Stop 3  
on

855m.

5225

~~Thurberia~~

bx roadside  
in mixed forest w

5226

1

Montrose  
& C. 575m on

5227

Wenmanville  
in forest



STOP 4

850 m

Wet forest

Wet forest

Wet forest

Moist Forest

Pittosporum to 80' tall

Scilla

px

Bell-shaped 25' tall fruit

at the tips of the branches

5221 *Pittosporum*

5222 *Smilax*

5223 *Tournefortia*

5228.5  
px

HACHETTIA

<sup>austrorhynchos</sup>

of BALANOPHORACEAE

5227 *Schoula dichotoma*

5231 *Phellodendron*

PHELLINACEAE

of ~~the~~ Apocynaceae

5232 Possible juvenile lvs  
but check for  
*PITTOSPORUM*

5233 *Pittosporum*

of *PITTOSPORACEAE*



Group 4 (C-10)

5234 Periomphale

5235 Myster, H. (C-10)

Group 4 (C-10)

Group 4 (C-10)

Group 4 (C-10)

Group 4 (C-10)

McGuillivray, H. (C-10)

Group 4 (C-10)

Group 4 (C-10)

Group 4 (C-10)

Group 4 (C-10)

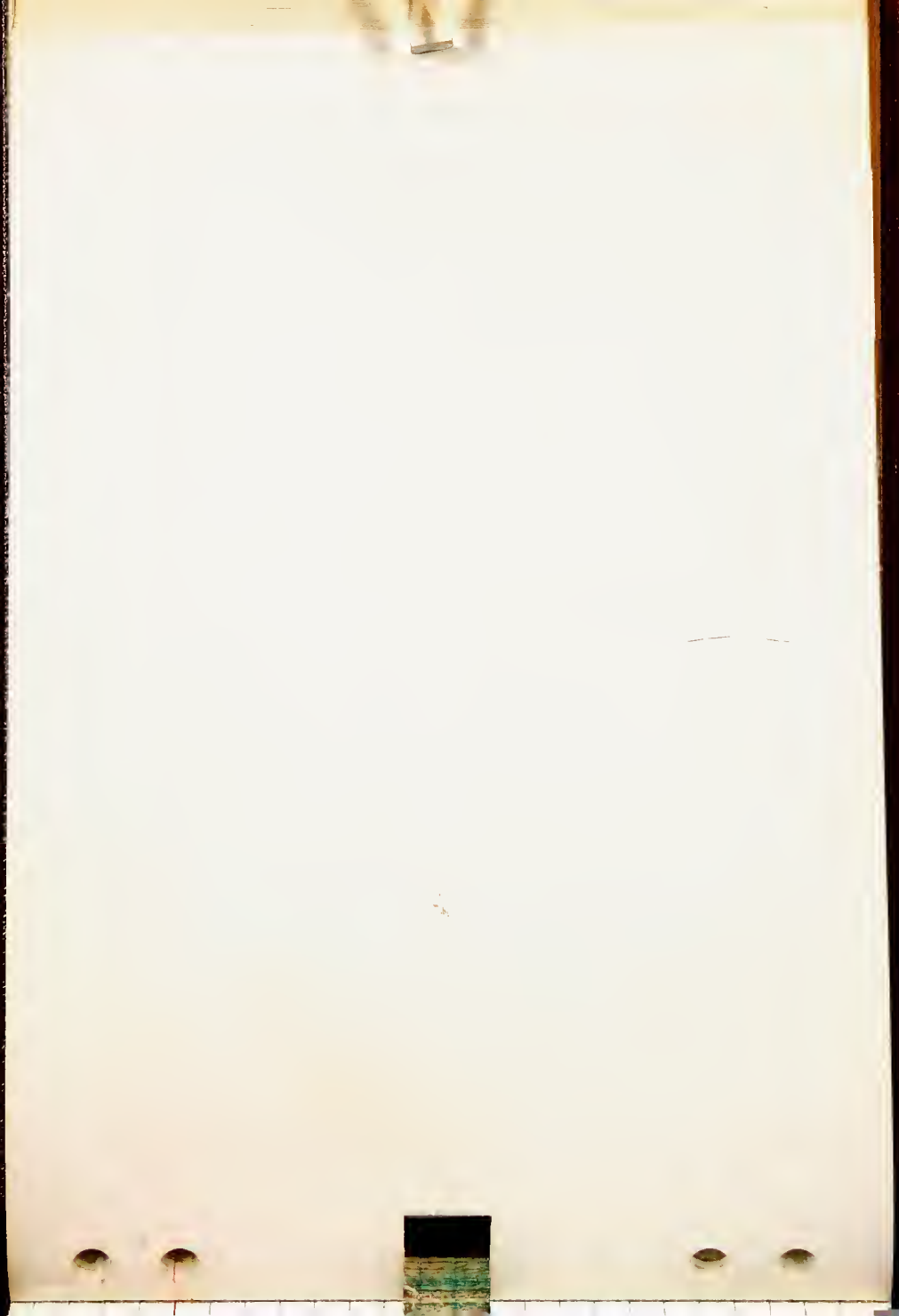
Group 4 (C-10)

Group 4 (C-10)

Group 4 (C-10)

Group 4 (C-10)

Group 4 (C-10)



5234

Hydrosporum n/7507h

ground cover

tsonggrong

Shangri-la

Shangri-la

5235

Roosting place of some birds

5236

Shangri-la

LENZITES or CORNICES

Shangri-la

5237

Shangri-la

5238

Shangri-la



STOP 5

500 ft

5242

*Acronyctus polytrichus*

on small tree

about 100 ft high

Tree 6 m

5243

Tree 5 m tall

*Austrobuscus chinensis*





9/5/19

The following is a list of

the items that were found in the

search of the files of the

files of the

files of the



5/19/81

Phonetic Alphabet

1. A - Alpha

2. B - Bravo

3. C - Charlie

4. D - Delta

5. E - Echo

6. F - Foxtrot

7. G - Golf

8. H - Hotel

9. I - India

10. J - Juliet

11. K - Kilo

12. L - Lima

13. M - Mike

14. N - November

15. O - Oscar

16. P - Papa

17. Q - Quebec

18. R - Romeo

19. S - Sierra

20. T - Tango

21. U - Uniform

22. V - Victor

23. W - Whiskey

24. X - X-ray

25. Y - Yankee

26. Z - Zulu



STOP 3 765' 300m  
top of last ridge  
small ridge

5242 Quercus laevis (2m)  
Small tree about 3m tall  
trunk (10cm dbh)  
C. laevis (10cm dbh)  
C. laevis (10cm dbh)  
C. laevis (10cm dbh)  
C. laevis (10cm dbh)  
C. laevis (10cm dbh)  
C. laevis (10cm dbh)  
C. laevis (10cm dbh)

5245 Quercus laevis  
C. laevis (10cm dbh)  
C. laevis (10cm dbh)  
C. laevis (10cm dbh)  
C. laevis (10cm dbh)  
C. laevis (10cm dbh)  
C. laevis (10cm dbh)  
C. laevis (10cm dbh)

5246 Acsmithia sapling 1.75m

5247 Cunila seedlings  
w/ young lvs.



STOP 3

5248 *Cynodon dactylon* L.

Common in open areas  
along roads

5249 *Acacia senaria* (L.) Willd.

Common in open areas

*Calligonum* sp.

Common in open areas

along roads

5250 *Echinocarpus* sp.

Common in open areas

along roads

*Calligonum* sp.

Common in open areas

along roads

along roads

5251 *Eugenia* sp.

Tree to 3 m

5252 *Commersonia* sp.

Tree to 3 m



5/9/81

5250 *Phyllanthus* ~~sp.~~  
100% *Phyllanthus*  
Wetland ~~sp.~~ to  
dry ~~sp.~~

5251 *Phyllanthus* ~~sp.~~

718 *Phyllanthus*

5255 *Phyllanthus*  
Wetland ~~sp.~~  
Wetland ~~sp.~~  
Wetland ~~sp.~~

5256 *Phyllanthus*  
Wetland ~~sp.~~  
Wetland ~~sp.~~



5/9/81

May 21

in Lake

Water

10

10

Dehydration

Amphibian

10/10/81

10/10/81

10/10/81

10/10/81

10/10/81

10/10/81

10/10/81



5257

1. 1000 M. H. (Chick)

1000 M. H. (Chick) 1000 M. H. (Chick)

1000 M. H. (Chick) 1000 M. H. (Chick)

1000 M. H. (Chick) 1000 M. H. (Chick)

1000 M. H. (Chick) 1000 M. H. (Chick)

1000 M. H. (Chick) 1000 M. H. (Chick)

1000 M. H. (Chick) 1000 M. H. (Chick)

1000 M. H. (Chick) 1000 M. H. (Chick)

1000 M. H. (Chick) 1000 M. H. (Chick)

1000 M. H. (Chick) 1000 M. H. (Chick)

1000 M. H. (Chick) 1000 M. H. (Chick)

1000 M. H. (Chick) 1000 M. H. (Chick)

1000 M. H. (Chick) 1000 M. H. (Chick)

1000 M. H. (Chick) 1000 M. H. (Chick)

1000 M. H. (Chick) 1000 M. H. (Chick)

1000 M. H. (Chick) 1000 M. H. (Chick)

1000 M. H. (Chick) 1000 M. H. (Chick)

1000 M. H. (Chick) 1000 M. H. (Chick)

1000 M. H. (Chick) 1000 M. H. (Chick)

1000 M. H. (Chick) 1000 M. H. (Chick)

1000 M. H. (Chick) 1000 M. H. (Chick)



5/9/81

5.50

Open scrub in

WACHUPHUM

WACHUPHUM

WACHUPHUM

WACHUPHUM

WACHUPHUM



6/9/87

Weedy legume shrub on  
hills ~~around~~ around Noomea  
Leucina



6.10.10

2nd of the Progress

1st of the Progress  
2nd of the Progress  
3rd of the Progress

5000 M. 10000  
5000 M. 10000

5000 M. 10000  
5000 M. 10000

5000 M. 10000  
5000 M. 10000

5000 M. 10000  
5000 M. 10000

5000 M. 10000  
5000 M. 10000

5000 M. 10000  
5000 M. 10000

5000 M. 10000  
5000 M. 10000

5000 M. 10000  
5000 M. 10000

5000 M. 10000  
5000 M. 10000



Aug 22nd

26- North ...

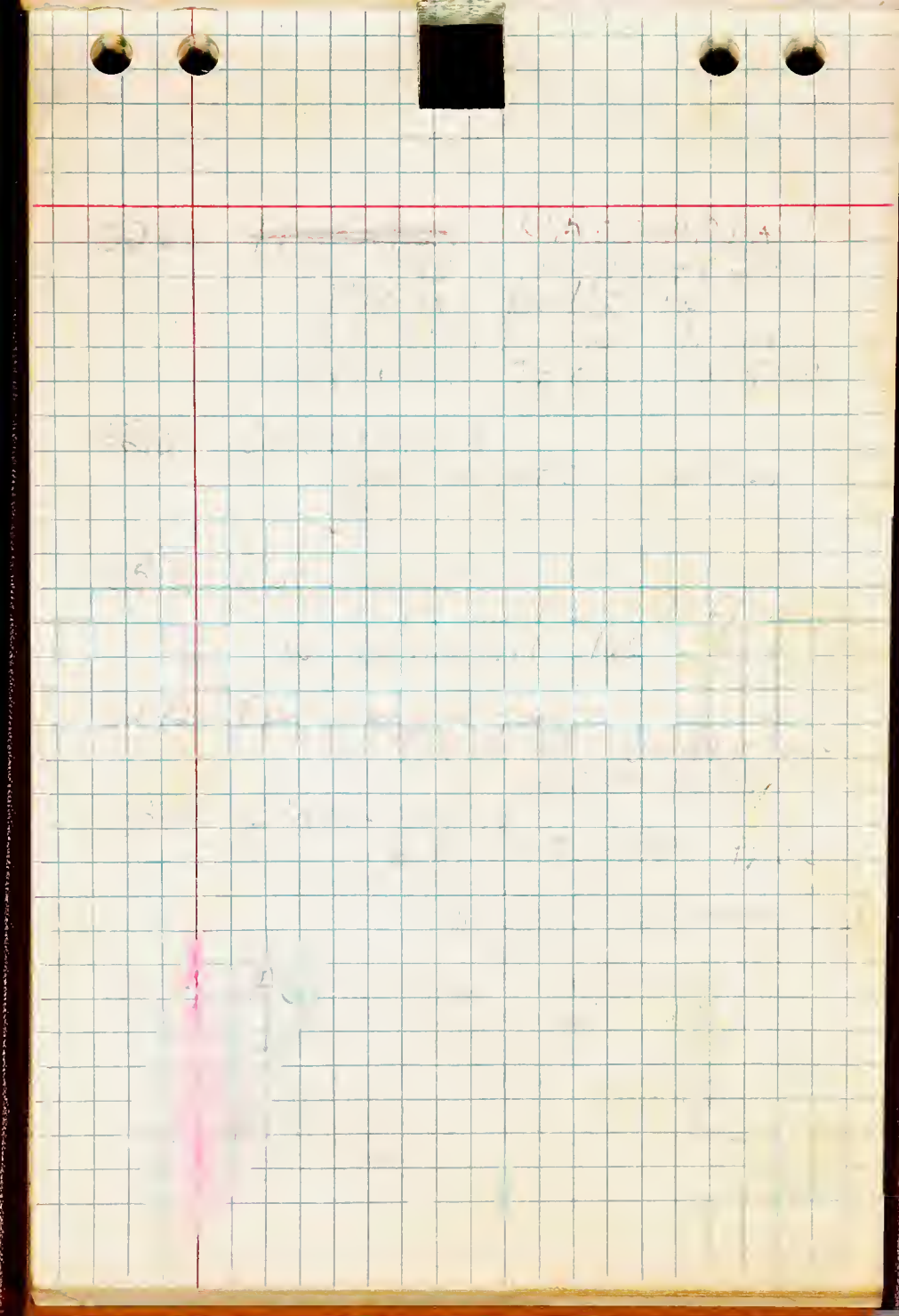
5265 Seedlings ...

...

5112

V









4/15/91

2/1/91

3/1/91

1/1/91

1/1/91

1/1/91

1/1/91



8/9/81

Rivier Blue

Hernandia

US

Ph.



June 1964

1964

June 1964

June 1964

June 1964

June 1964

June 1964



8/1/77

Details of the  
the  
the

the  
the  
the

the  
the  
the

the  
the  
the

the  
the  
the

the  
the



24 2024 1000 1000 1000

1000 1000 1000 1000

1000 1000 1000 1000

1000 1000 1000 1000

1000 1000 1000 1000

1000 1000 1000 1000

1000 1000 1000 1000

1000 1000 1000 1000

1000 1000 1000 1000

1000 1000 1000 1000

1000 1000 1000 1000

1000 1000 1000 1000

1000 1000 1000 1000

1000 1000 1000 1000

1000 1000 1000 1000

1000 1000 1000 1000

1000 1000 1000 1000

1000 1000 1000 1000

1000 1000 1000 1000

1000 1000 1000 1000

1000 1000 1000 1000



1955 - 1956

Map of the area

5000' - 6000'

Wooded area of the  
F.A. - 1955



1975

px

Veronica

Veronica

Veronica

Veronica

Veronica

Veronica

Veronica

Veronica

Veronica

Veronica

Veronica

Veronica



5263

10/10/10

+ 11.5/10

11.5/10 11.5/10

11.5/10

11.5/10 11.5/10

11.5/10 11.5/10

11.5/10 11.5/10

11.5/10 11.5/10

11.5/10 11.5/10

11.5/10 11.5/10

11.5/10 11.5/10

11.5/10 11.5/10

11.5/10 11.5/10

11.5/10 11.5/10

11.5/10 11.5/10

11.5/10 11.5/10

11.5/10 11.5/10

11.5/10 11.5/10

11.5/10 11.5/10

11.5/10 11.5/10

11.5/10 11.5/10

11.5/10 11.5/10

11.5/10 11.5/10

11.5/10 11.5/10

11.5/10 11.5/10

11.5/10 11.5/10

11.5/10 11.5/10

11.5/10 11.5/10

11.5/10 11.5/10

11.5/10 11.5/10

11.5/10 11.5/10



9/13/81

8115

Lowell Spans Station  
in Division in Shire of  
South Devon  
in March 1911 K.  
14203 E, 200 S 7'S

Austrocephalus in foliage

Observation

Grade of Groundwater

Joseph's Church

taxonomic but possible  
wood growth w

Growth rings sharp

and observation axis

with observation and respect

with observation and respect

in Shire at top of

small very low rise

in winter fin.



8116

H171

WINTON Fm

ASH grey to buff STST  
w leaves interbedded  
w semi ferrug. mat to fg.  
SS. abt 20' above base of  
hill. Shoulder lies on the  
SW side of a  
semi circ. valley & is the  
last spur before the  
flats to the SW.

"Betula" type w 100% like *B. pice* <sup>scr</sup>  
 P470000 w pinn ven.  
 Eriacridaceae w 100% lots  
 Arbutus - foliage x conc scales  
~~W~~ *Dactylidium* fol. x conc  
 Lentic ovate leaf  
 Tachipterus type leaf.

Another 70' to top of  
 Ling. sp. which  
 has passed to top  
 with ~~the~~ some fine  
 traces in a basically  
 fine. sp.  
 interval w/ some red  
 Jasper in cap



8116

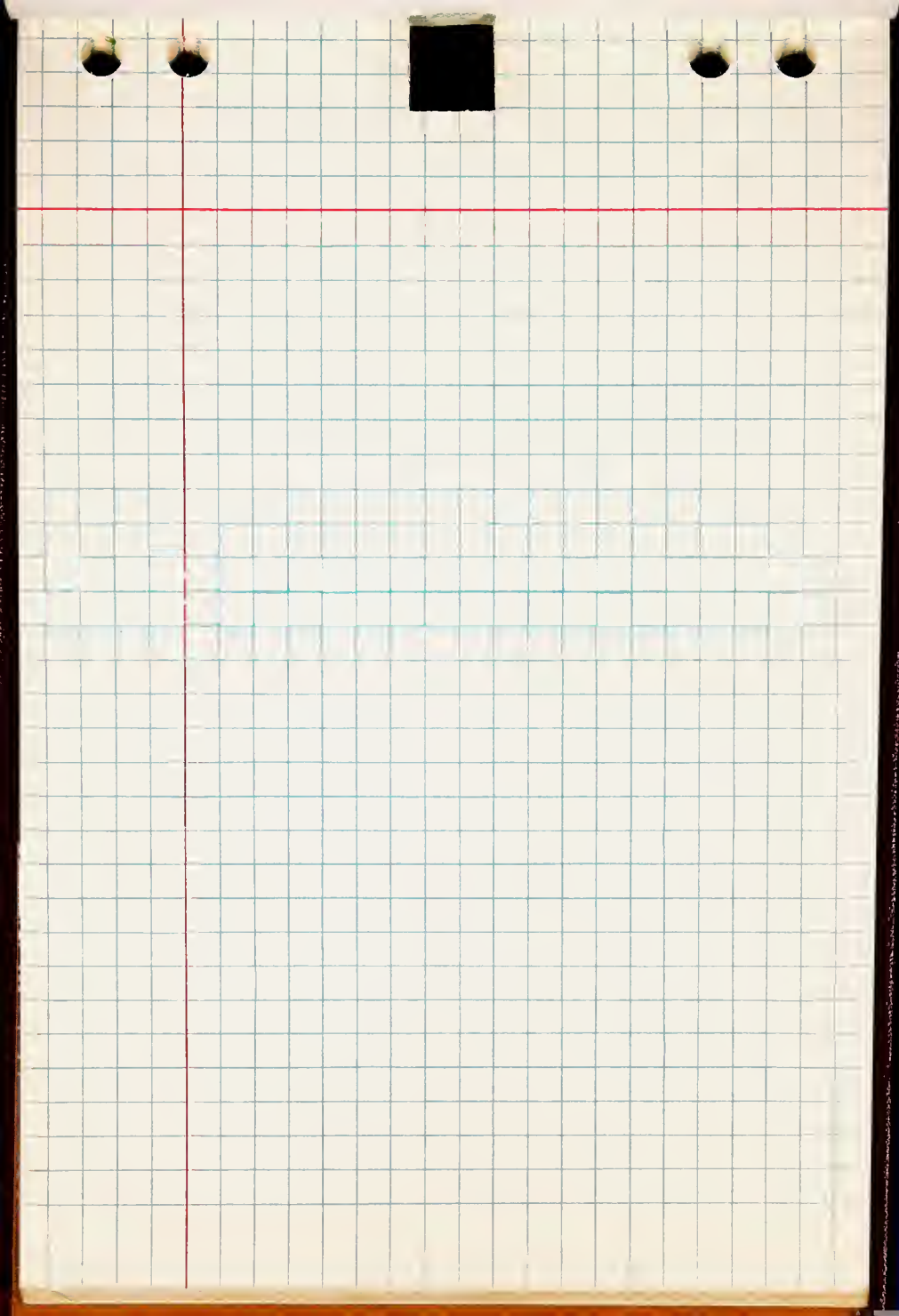
Contd.

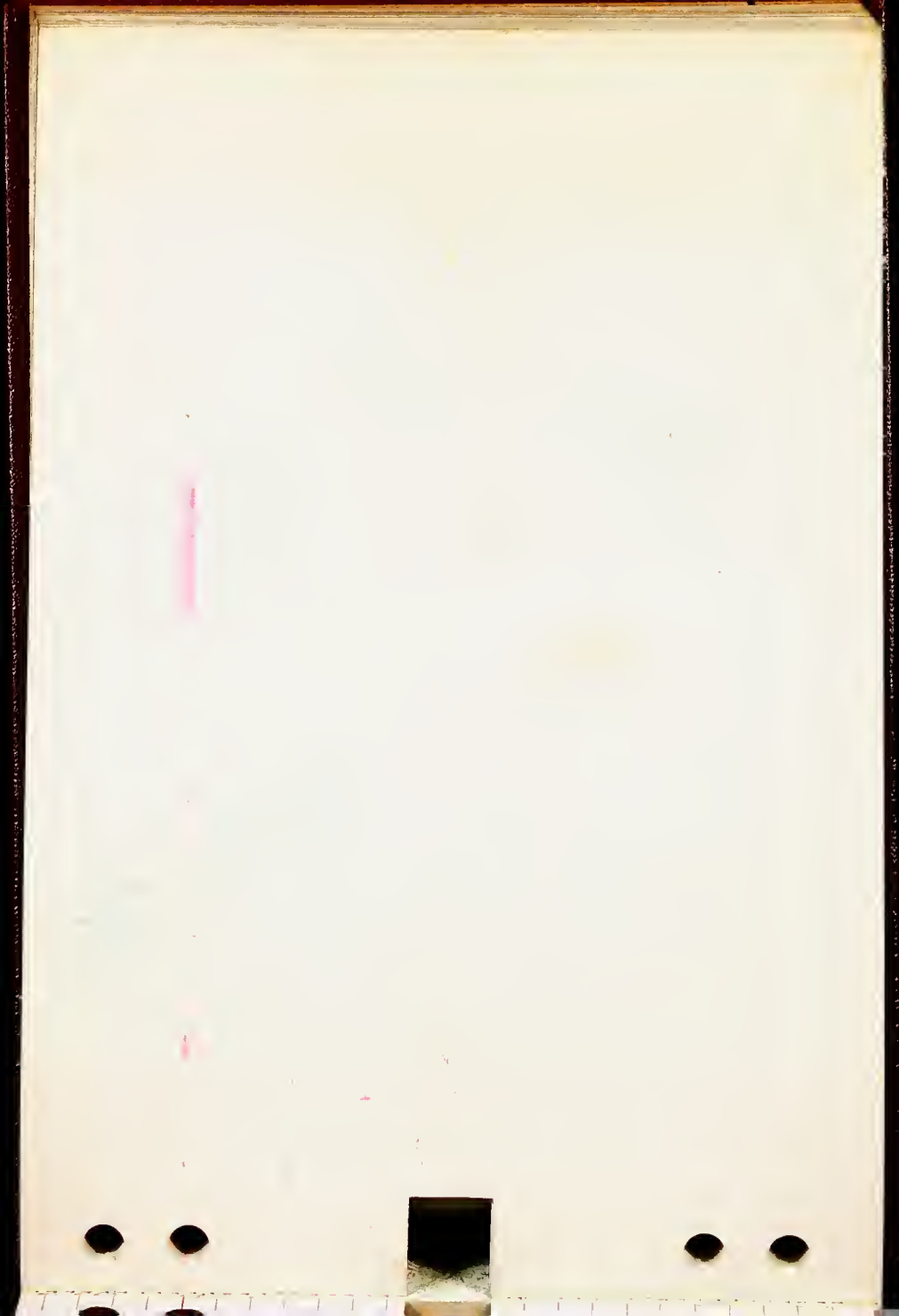
MATERIAL Coded as  
follows

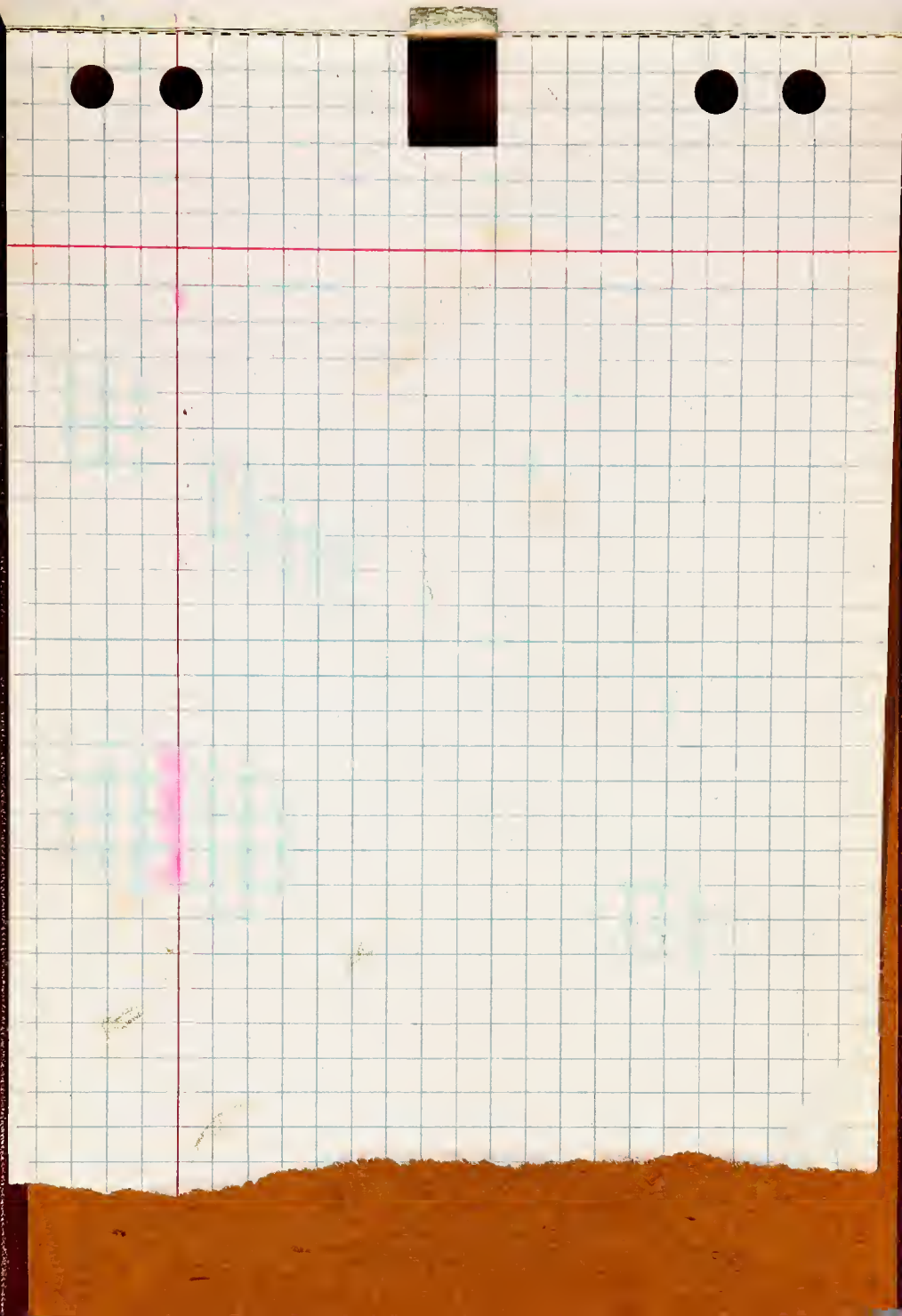
8116 FOR USAM

- II - Secondary material  
left at Adelaide  
for inclusion in  
a large study
- I - Primary material  
for studies in  
Adelaide
- C - Material for  
studies in  
Adelaide









Graham Phillips

~~Amos~~ at Jesus Place  
if needed.

- Victoria Hotel  
Little Collins St.

63 2331



